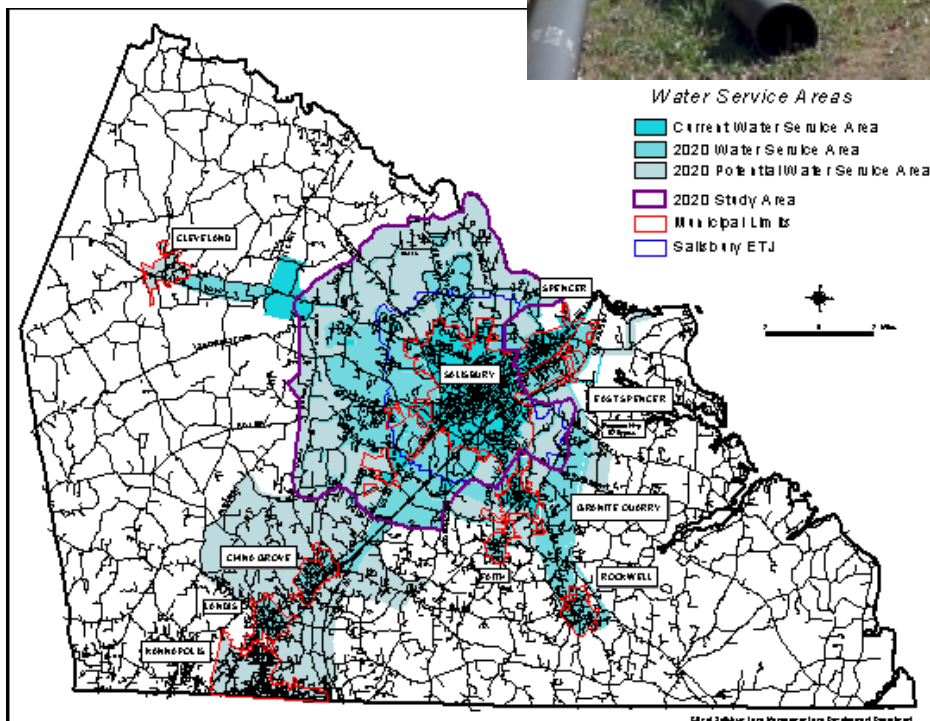


Utilities – Engineering Division



Purpose

Provide consulting engineering and construction management services to other Divisions, utility customers, developers and the public, as needed. Enforce and maintain utility construction standards to protect the well-being of City of Salisbury utility customers. To reduce departmental design costs, decrease construction costs of utility projects, and improve the overall effectiveness of utility designs. To provide accurate design documents, cost analyses, and feasibility studies.

GIS Uses

The Engineering Division of the Utilities Department serves as the primary contact for GIS information regarding the City water and sewer systems. At present, information that is available is maintained in AutoCAD. Plans exist to obtain a complete water and sewer inventory, with cost and personnel (for continuing maintenance) as the limiting factors.

The Engineering Division uses GIS to produce a number of thematic maps for use within the Utilities Department, as well as custom mapping for other city departments, local agencies, and individuals. As the technology base increases, we can continue to expand this mapping element to be easily available to the public through the internet.

As additional data layers are developed, it will become easier to identify areas that could be serviced by Salisbury water and sewer. Parcel level data, coupled with a complete water and sewer inventory, will improve many processes, including hydraulic modeling, new construction of water and sewer lines, and maintenance of existing infrastructure.

Data Development

The following data layers have been identified as necessary for use by the Engineering Division of the Utilities Department:

Layer Name	Use	Status
City ETJ boundary	Reference	Complete
City limit boundary	Reference	Complete
Fire hydrants	Indicate location and other pertinent attributes about hydrants	Not started
Grease traps	Indicate location of grease traps	Not started
Manholes	Indicate location of manholes	Not started
Meters	Indicate location of meters	Not started
Orthophotography	Reference	Current photos date to 1983; new flight scheduled winter of 2001-2002
Parcels	Tax map and parcel number matching; reference	County in process of acquiring data from vendor, ASI
Pump stations	Indicate location of pump stations	Not started
Sewer lines	Indicate location of sewer service lines; reference	Not started
Sewer service areas	Indicate broad areas where sewer service is available or anticipated to be available; reference	Complete (Salisbury 2020 Plan)
Significant Industrial Users (SIUs)	Indicate location of significant industrial water users	Not started
Storm drains	Identify locations of storm drains within City limits	Complete (in CAD); digitized from paper map
Streets	Address matching; reference	Currently maintained in CAD; anticipate moving to ArcInfo in early 2002
Water lines	Indicate location of water service lines; reference	Not started
Water line valves	Indicate location of water line valves	Not started
Water mains	Indicate location of water mains	Not started

Water service areas	Indicate broad areas where water service is available or anticipated to be available; reference	Complete (Salisbury 2020 Plan)
Water tanks	Indicate location of water tanks	Maintained as part of Tower Sites (in CAD)
Well sites	Indicate location of well sites	Not started

Goals

1. Develop data layers as identified in the ***Data Development*** section.
2. Utilize GIS water and sewer line inventories for hydraulic modeling.
3. Obtain new orthophotography to assist in water and sewer extension plans.
4. Obtain new topographic information for Granite Quarry, Rockwell, and other areas serviced by City Utilities that are actually located in the County.
5. Plan the construction of water and sewer lines along growth corridors toward target growth areas identified by Planning and Community Development staff.
6. Utilize GIS water and sewer inventory to establish a prioritization system for capital improvement projects for water and sewer recommendations.
7. Develop a web-based based application to illustrate the location of water and sewer availability in and around the City of Salisbury. Make this available to the general public as well as other City departments.